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10/051,503	01/17/2002	Calvin Chunliang Lee		1608

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Calvin Chunliang Lee
24294 Lynwood Dr.
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EXAMINER

LEFLORE, LAUREL E

ART UNIT	PAPER NUMBER
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2673

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DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,503

Applicant(s)

LEE, CALVIN CHUNLIANG

Examiner

Laurel E LeFlore

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings were received on 4 April, 2002. The black and white drawings are acceptable.

Claim Objections

2. Claims 1-14 are objected to because of the following informalities:

In claim 1, line 7 and again on line 13, "slides" should be "to slide". The period at the end of items (a)-(g) should be a comma.

In claim 2, there should be a comma after "mouse" in line 26, and there should be a period at the end of the claim.

In claim 3, line 7, "comprising" should be "comprises".

In claim 4, there should be a comma after "mouse" in line 26.

In claim 5, line 10, "comprising" should be "comprises", and there should be a period at the end of the claim.

In claim 6, there should be a comma after "mouse" in line 23.

In claim 7, line 8, "moves" should be "to move". On line 14, "slides" should be "to slide". There should be a comma after each of items (a) to (h).

In claim 8, there should be a comma after "mouse" in line 27. There should be a period at the end of the claim.

In claim 9, line 9, "comprising" should be "comprises".

In claim 10, there should be a comma after "mouse" in line 2. There should be a period at the end of the claim.

In claim 11, line 12, "comprising" should be "comprises".

In claim 12, in line 25, the period after "mouse" should be a comma.

In claim 13, the period in line 10 should be a comma.

In claim 14, line 23, there should be a comma after "device".

Appropriate correction is required.

3. Claim 5 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 describes the movement or position sensing means, which sends a signal to determine the movement or position of a cursor. This is described in items (g) and (h) of claim 1.
4. Claim 11 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 describes the movement or position sensing means, which sends a signal to determine the movement or position of a cursor. This is described in items (g) and (h) of claim 7.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris 5,488,392.

In regard to claims 1 and 5, Harris discloses in figure 1 an integrated mouse and pad pointing device for cursor control in a display means of a computational device comprising a stationary base (element 30), a pad plate (element 50) with a straight or curvilinear slot (element 64), a sliding means (elements 38 and 53) that allows the pad plate to slide relative to the stationary base, a pad plate holding means (element 23) that prevents the pad plate from separating from the stationary base when the pad plate slides relative to the stationary base, a mouse (element 80) and a sliding means (element 85) that allows the mouse to slide in the slot of the pad plate. Also see column 7, line 59 to column 8, line 5, disclosing the sliding movement of pointer (mouse) 80 conjointly with carriage (pad plate) 50 relative to stationary base 30.

Harris further discloses a set of movement or position sensing means (elements 135 and 136) that detects the movement or position of the mouse relative to the stationary base and generates and sends a signal of the movement or position of the mouse relative to the stationary base to a mouse movement or position computing means. Also see column 8, lines 39-56, disclosing, "Means to track movement of the pointer 80 comprises the two rotary encoder disk assemblies 135 and 136 that are driven by racks 38 and 85. The

encoder disk assembly 135 is mounted within the carriage 50 such that it is rotated by the rack 38 during movement of the carriage 50 along the X-axis, thereby causing the generation of signals indicative of the amount and direction that the carriage 50 is moved. Similarly... The encoder disk assembly 136 is positioned to be rotated by the rack 85 as the pointer 80 is moved along the Y-axis, thereby causing the generation of signals indicative of the amount and direction that the pointer 80 is moved relative to the Y-axis."

Harris further discloses mouse movement or position computational means computes and determines the movement or the position of the cursor in the display means of the computational device from the signal of the movement or position of the mouse relative to the stationary base. See column 4, line 65 to column 5, line 2, disclosing, "the generation of consistent positioning data and the capacity to maintain a substantially absolute map of the operation plate's position to the cursor's position."

7. In regard to claims 2, 4 and 6, Harris discloses in figure 5 that the integrated mouse and pad pointing device for cursor control in a display means of a computational device further includes one or a plurality of click buttons (elements 95A, 95B) that are installed on the mouse, an on-off switch means (elements 165 and 166) attached to the mouse under each of the click buttons that sends a signal to the computational device to signal the clicking of the click button when the click button over the on-off switch means is clicked or pressed. See column 14, lines 48-53, disclosing that the switches have conductors communicating to

contacts of a circuit board 160. Thus, an on-off signal is sent from the switches.

See column 15, lines 29-51, describing the positioning and activation of the buttons, 95A and 95B, and the switches, 165 and 166. As can also be seen from figure 5, the clicking of the buttons may be conveniently executed at the same time as when the mouse is being moved.

8. In regard to claim 3, Harris discloses in figure 5 that the movement or position sensing means comprises a mouse-to-pad movement or position sensing means (element 136) that detects the movement or position of the mouse in the slot of the pad plate relative to the pad plate and a pad-to-base movement or position sensing means (element 135) that detects the movement or position of the pad plate relative to the stationary base that generate and send a mouse-to-pad movement or position signal of the movement or position of the mouse in the slot of the pad plate relative to the pad plate and a pad-to-base movement or position signal of the movement or position of the pad plate relative to the stationary base, respectively, to the mouse movement or position computing means whereby the movement or position of the cursor on the display means of the computational device is determined by a combination of the mouse-to-pad movement or position signal and the movement or position signal of the pad-to-base movement or position signal. See rejection of claim 1.
9. In regard to claim 13, see rejection of claim 1. In particular, see column 5, lines 1-2, in which Harris discloses "a substantially absolute map of the operation plate's position to the cursor's position." Thus, the movement or position of the

mouse covers an area (the area of the operation plate 50) corresponding to the display area the display means, as a cursor would be in the display area.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris 5,488,392 in view of Jackson 6,611,139 B1.

In regard to claims 7 and 11, Harris discloses an invention that is similar to the claimed invention. See rejection of claim 1. Harris differs from the claimed invention in that the claimed invention states that the pad plate moves "pivotally about" the stationary base.

Jackson discloses a positional device (see column 6, lines 64 to column 7, line 8, in reference to figure 1) in which "Pivoting the cover 2 with respect to the base 1 results in the pivoting of the z-pivoting member 6 and the movement of the z-Hall effect 7 between the z-magnets 8 and 9....the position of the Hall effect devices enables an electrical signal relating to movement in three dimensions to be generated. This would...allow the movement of an object or cursor in three perceived dimensions on a computer screen."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Harris by allowing the pad plate to move pivotally about the stationary base, as in the invention of Jackson. One would have been motivated to make such a change based on the teaching of Jackson to use a pivotal movement in order to allow the movement of a cursor in three perceived dimensions on a computer screen, or to allow more manipulation of the cursor by the positioning device.

12. In regard to claims 8, 10 and 12, Harris discloses in figure 5 that the integrated mouse and pad pointing device for cursor control in a display means of a computational device further includes one or a plurality of click buttons (elements 95A, 95B) that are installed on the mouse, an on-off switch means (elements 165 and 166) attached to the mouse under each of the click buttons that sends a signal to the computational device to signal the clicking of the click button when the click button over the on-off switch means is clicked or pressed. See column 14, lines 48-53, disclosing that the switches have conductors communicating to contacts of a circuit board 160. Thus, an on-off signal is sent from the switches. See column 15, lines 29-51, describing the positioning and activation of the buttons, 95A and 95B, and the switches, 165 and 166. As can also be seen from figure 5, the clicking of the buttons may be conveniently executed at the same time as when the mouse is being moved.
13. In regard to claim 9, Harris discloses in figure 5 that the movement or position sensing means comprises a mouse-to-pad movement or position sensing means

(element 136) that detects the movement or position of the mouse in the slot of the pad plate relative to the pad plate and a pad-to-base movement or position sensing means (element 135) that detects the movement or position of the pad plate relative to the stationary base that generate and send a mouse-to-pad movement or position signal of the movement or position of the mouse in the slot of the pad plate relative to the pad plate and a pad-to-base movement or position signal of the movement or position of the pad plate relative to the stationary base, respectively, to the mouse movement or position computing means whereby the movement or position of the cursor on the display means of the computational device is determined by a combination of the mouse-to-pad movement or position signal and the movement or position signal of the pad-to-base movement or position signal. Also see rejection of claim 7.

Harris differs from the claimed invention in that the claimed invention states that the positional device has a "rotational pad-to-base movement".

Jackson discloses a positional device (see column 6, lines 64 to column 7, line 8, in reference to figure 1) in which "Pivoting the cover 2 with respect to the base 1 results in the pivoting of the z-pivoting member 6 and the movement of the z-Hall effect 7 between the z-magnets 8 and 9...the position of the Hall effect devices enables an electrical signal relating to movement in three dimensions to be generated. This would...allow the movement of an object or cursor in three perceived dimensions on a computer screen."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Harris by allowing the pad plate to move rotationally about the stationary base, as in the invention of Jackson. One would have been motivated to make such a change based on the teaching of Jackson to use a pivotal (or rotational) movement in order to allow the movement of a cursor in three perceived dimensions on a computer screen, or to allow any greater amount of manipulation of the cursor by the positioning device.

14. In regard to claim 14, Harris discloses an invention that is similar to the claimed invention. See rejection of claim 7. In particular, see column 5, lines 1-2, in which Harris discloses "a substantially absolute map of the operation plate's position to the cursor's position." Thus, the movement or position of the mouse covers an area (the area of the operation plate 50) corresponding to the display area the display means, as a cursor would be in the display area.

Harris differs from the claimed invention in that the claimed invention states that the pad plate moves "pivotaly about" the stationary base.

Jackson discloses a positional device (see column 6, lines 64 to column 7, line 8, in reference to figure 1) in which "Pivoting the cover 2 with respect to the base 1 results in the pivoting of the z-pivoting member 6 and the movement of the z-Hall effect 7 between the z-magnets 8 and 9....the position of the Hall effect devices enables an electrical signal relating to movement in three dimensions to be generated. This would...allow the movement of an object or cursor in three perceived dimensions on a computer screen."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Harris by allowing the pad plate to move rotationally about the stationary base, as in the invention of Jackson. One would have been motivated to make such a change based on the teaching of Jackson to use a pivotal movement in order to allow the movement of a cursor in three perceived dimensions on a computer screen, or to allow any greater amount of manipulation of the cursor by the positioning device.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clark 5,086,296 discloses a mouse in slot configuration similar to that of the claimed invention.

Frank et al. 5,252,952 discloses a sliding pad plate and mouse in slot configuration that is similar to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel E LeFlore whose telephone number is (703) 305-8627. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (703) 305-3885. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LEL



JOSEPH MANCUSO
PRIMARY EXAMINER